Before the Federal Communications Commission Washington, D.C. 20554

| Adopted: April 2, 2003 | | Released: April 2, 2003 |
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| | Order | |
| Request for Declaratory Ruling Regarding Emissions from Digital Circuitry Used with Ultra-Wideband Transmitters. |))) | |
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By the Chief, Office of Engineering and Technology

- 1. On December 3, 2002, a Request for Declaratory Ruling was filed on behalf of twenty-three companies and associations (the "requesting parties"). The requesting parties ask the Commission to issue a declaratory ruling that all emissions associated with digital circuitry used to generate ultra-wideband (UWB) emissions are required to meet the radiated emission limits provided in Subpart F of Part 15 of the Commission's rules for UWB transmitters.²
- 2. Section 15.521(c) of the Commission's rules states that emissions from digital circuitry contained within a UWB transmitter are subject to the limits specified in Section 15.209 if those emissions are not intended to be radiated from the transmitter's antenna.³ The requesting parties assert that the language in Section 15.521(c) is ambiguous because the regulation identifies any emission that is not intended to be radiated from the antenna as a digital emission. To remove this ambiguity, they request that the Commission declare that all digital emissions associated with circuitry used to generate UWB emissions are required to comply with the tighter limits specified in Subpart F of Part 15, rather than the limits in Section 15.209, regardless of whether these emissions are intended to be radiated by the UWB transmitter's antenna. The requesting parties further ask that all components that generate the UWB emissions, including digital components, be isolated from the emissions of other digital circuitry during testing, *i.e.*, that the circuitry that generates the UWB emissions be disabled, so as to isolate the unintended digital emissions.
- 3. The standard addressed by the requesting parties was implemented in the *First Report and Order* in ET Docket No. 98-153. In that *Order*, the Commission specifically stated that the emissions from digital circuitry used with the UWB transmitter for the purpose of enabling the operation of the transmitter are not subject to the transmitter limits specified in Subpart F of Part 15, but are subject

The request was filed by Air Transport Association of America, Inc.; American Airlines; American Congress on Surveying and Mapping; ARRL, the National Association for Amateur Radio; The Boeing Company; Deere & Co.; Delta Air Lines, Inc.; Garmin International, Inc.; General Aviation Manufacturers Association; Global Locate, Inc.; National Business Aviation Association, Inc.; NavCom Technology, Inc.; Northwest Airlines, Inc.; PanAmSat Corporation; QUALCOMM Incorporated; Raytheon Company; Rockwell Collins, Inc.; Sirius Satellite Radio Inc.; Tendler Cellular, Inc.; Thales Navigation; Trimble Navigation Ltd.; United Airlines; and United States GPS Industry Council.

² See 47 C.F.R. §§ 15.509-15.519.

³ 47 C.F.R. §§ 15.209 and 15.521(c).

to the more lenient standards specified in Section 15.209.⁴ Based on its desire to pursue a cautionary approach in its introduction of UWB standards, the Commission also required a demonstration that the emissions from the digital circuitry are not intended to be radiated from the antenna. The Commission also stated that emissions from digital devices, *i.e.*, circuitry used to control additional functions or capabilities, as defined in Section 15.3(k), are subject to the limits specified in Section 15.109 for Class A or B digital devices, as appropriate.⁵ In the recently adopted *Memorandum Opinion and Order and Further Notice of Proposed Rule Making* in ET Docket No. 98-153, the Commission, for the sake of clarity, amended the language in Section 15.521(c) to more closely reflect the language contained in the text of the *First Report and Order*.⁶ The Commission stated that the need to modify the rule was demonstrated by two separate pending requests: an Application for Review filed against a grant of certification issued to Time Domain Corporation for its UWB transmitter, as discussed below, and this Request for Declaratory Ruling.

- 4. In another recently adopted *Memorandum Opinion and Order* ("MO&O"), the Commission denied an Application for Review of a grant of certification issued to Time Domain Corporation for its UWB transmitter, FCC ID NUF-200SGT-0702.⁷ This Application for Review was filed by many of the same requesting parties, who raised essentially the same arguments that they present in this Request for Declaratory Ruling. In this MO&O, the Commission concluded that: the digital circuitry discussed in Section 15.521(c) includes circuitry used to control and enable the operation of the transmitter; the emissions produced by the Time Domain transmitter were from digital circuitry used with the UWB transmitter; these emissions are subject to the limits specified in Section 15.209; and the test procedure sought by the requesting parties is not feasible and would not provide useful test results. Thus, the Commission has been clear in its recent decisions that the standard specified in Section 15.521(c) applies to emissions from all digital circuitry contained within UWB transmitters. As long as these emissions are not intended to be radiated from the antenna, they are subject to the limits specified in Section 15.209.
- 5. Accordingly, under the authority contained in Sections 0.31(i) and (j) and 0.241(a) of the Commission's regulations, 47 CFR §§ 0.31(i) and (j) and 0.241(a), IT IS ORDERED that the request for a declaratory ruling of 47 C.F.R. § 15.521(c), as described above, IS DISMISSED.
- 6. Questions regarding this Order can be directed to John Reed at <u>ireed@fcc.gov</u> or at (202) 418-2455.

Ed Thomas Chief, Office of Engineering and Technology

⁶ Memorandum Opinion and Order and Further Notice of Proposed Rule Making in ET Docket No. 98-153, FCC 03-33, released March 12, 2003, at para. 150.

See First Report and Order in ET Docket No. 98-153, 17 FCC Rcd 7435, 7506 (2002).

⁵ *Id. See*, also, 47 C.F.R. §§ 15.3(h), (i) and (k), 15.107, and 15.109.

See Memorandum Opinion and Order, Application for Review of Certification of a Time Domain UWB Transmitter, FCC Identifier NUF-200SGT-0702, 18 FCC Rcd 2369 (2003) at para. 8-10.